

Amendments to the Claims

11. (New) Receiver designed for acting in concert with one or several receiving antennae for interference suppression for TDMA and/or FDMA transmission comprising at least pulse amplitude modulation or binary CPM, Continuous Phase Modulation, comprising:

- at least a filtering device including complex-valued coefficients $f_i(k)$, with the at least one filtering device being designed for filtering at least one complex-valued received signal $r_i(k)$ of a receiving antennae for generating at least one output signal $y_i(k)$;

wherein

the receiver further comprises

- at least one projection device to which the at least one output signal $y_i(k)$ is coupled for forming a projection P_i of the at least one output signal $y_i(k)$ onto a direction vector p_i assigned to this output signal $y_i(k)$, with the dimension of the direction vector p_i irrespective of the number of receiving antennae being two; and

in case the number of the projections P_i is one:

- a device for detection to which the output signal of the projection P_i is coupled;

or

in case the number of the projections is two or more:

- a device for summing a majority of the projections P_i for forming a sum signal $s(k)$; and
- a device for detection to which the sum signal $s[k]$ is coupled.